

**PCB Batch QC Summary**

Instrument: 2A  
Column: RTX-CLP 30 m x 1.5 um x 0.5 um I.D.  
Date Analyzed: 03/10/2015  
Matrix: Solid  
Analytical Batch #: 031015 2A

Prep Batch #: 030415pcb-01

Laboratory Control Sample (Method Spike) and Matrix Spike/Matrix Spike Duplicate concentration: 500 ppb (QC +/- 30%)  
Initial Calibration (ICV) and Continuing Calibration (CCV) concentration: 500 ppb (QC +/- 20%)  
Instrument and Method Blanks are to be less than 100 ppb Initial weight: Final volume: 10ml

Sample Number	Date Received	Date Extracted	TCMX found	% Recovery	DCB found	% Recovery	Conc Found	AR1016 % Recovery	AR1260 % Recovery	AR1254 % Recovery	AR1248 % Recovery
CCV 1660	NA	NA	54.7253	109.5	57.7030	115.4		105.4	117.4		
ICV 1254	NA	NA	54.4347	108.9	59.1287	118.3				118.1	
ICV 1248	NA	NA	58.7382	117.5	55.1731	110.3					105.8
MB	NA	NA	53.2690	106.5	54.4990	109.0	ND				
LCS	NA	NA	48.6466	97.3	59.4258	118.9		130.0	119.1		
42247-41 5X	02/26/15	3/4/2015	47.0268	94.1	ND	ND [1]	811.3				
42247-42	02/26/15	3/4/2015	59.3397	118.7	57.1350	114.3	500.9				
42247-43	02/26/15	3/4/2015	48.1457	96.3	52.3915	104.8	646.3				
42247-44	02/26/15	3/4/2015	58.7367	117.5	60.1405	120.3	719.6				
42247-45	02/26/15	3/4/2015	58.5287	117.1	57.3624	114.7	973.0				
42247-46	02/26/15	3/4/2015	60.6068	121.2	60.2392	120.5	1512.0				
42247-47	02/26/15	3/4/2015	63.2350	126.5	57.2760	114.6	1857.3				
42247-48	02/26/15	3/4/2015	45.4981	91.0	59.9890	120.0	197.3				
42247-49	02/26/15	3/4/2015	42.6047	85.2	58.0620	116.1	203.6				
42247-50	02/26/15	3/4/2015	39.0315	78.1	52.1874	104.4	288.3				
42247-51	02/26/15	3/4/2015	57.7058	115.4	58.6764	117.4	613.2				
42247-52	02/26/15	3/4/2015	54.3629	108.7	55.6374	111.3	739.6				
42247-53 20X	02/26/15	3/4/2015	3.5800	143.2 [1]	2.6692	106.8	1462.3				
42247-54 2X	02/26/15	3/4/2015	25.3714	101.5	28.0625	112.3	1236.7				
42247-55 10X	02/26/15	3/4/2015	6.2162	124.3	4.9709	99.4	198.9				
42247-56	02/26/15	3/4/2015	46.6518	93.3	54.1025	108.2	ND				
CCV 1660	NA	NA	48.1645	96.3	50.6975	101.4		113.0	108.3		
CCV 1254	NA	NA	41.2045	82.4	45.0348	90.1				87.8	
CCV 1248	NA	NA	35.3921	70.8	52.5987	105.2					113.2

- [1] Matrix interference  
[2] Outside method limits but within laboratory acceptance limits  
[3] Surrogate diluted out  
[4] Sample concentration exceeds spike concentration  
[5] Sample not spiked/spiked incorrectly  
[6] Outside method limits

## PCB Batch QC Summary

Instrument: 2A

Matrix: Wipe

Column: RTX-CLP 30 m x 1.5 um x 0.5 um I.D.

Date Analyzed: 03/09/2015

Analytical Batch #: 030915 2a

Prep Batch #: 030415pcb02

Laboratory Control Sample (Method Spike) and Matrix Spike/Matrix Spike Duplicate concentration: 500 ppb (QC +/- 30%)

Initial Calibration (ICV) and Continuing Calibration (CCV) concentration: 500 ppb (QC +/- 20%)

Instrument and Method Blanks are to be less than 100 ppb Initial weight: Final volume: 10ml

Sample Number	Date Received	Date Extracted	TCMX found	TCMX % Recovery	DCB found	DCB % Recovery	Conc Found	AR1016 % Recovery	AR1260 % Recovery
CCV	NA	NA	61.0783	122.2	95.3651	190.7 [6]		114.1	153.3 [6]
MB	NA	3/4/2015	53.5389	107.1	49.9584	99.9	ND		
42247-57	02/26/15	3/4/2015	51.1040	102.2	49.7510	99.5	ND		
42247-58	02/26/15	3/4/2015	53.0609	106.1	48.4909	97.0	ND		
42247-59	02/26/15	3/4/2015	54.4574	108.9	50.3647	100.7	ND		
42247-60	02/26/15	3/4/2015	52.4212	104.8	47.6587	95.3	ND		
42247-61	02/26/15	3/4/2015	57.0883	114.2	54.3145	108.6	ND		
42247-62	02/26/15	3/4/2015	54.2775	108.6	49.5598	99.1	ND		
42247-63	02/26/15	3/4/2015	54.7621	109.5	46.0600	92.1	ND		
CCV	NA	NA	56.3475	112.7	87.8798	175.8 [6]		109.3	137.8 [6]

- [1] Matrix Interference  
 [2] Outside method limits but within laboratory acceptance limits  
 [3] Surrogate diluted out  
 [4] Sample concentration exceeds spike concentration  
 [5] Sample not spiked/spiked incorrectly  
 [6] Outside method limits

ADDENDUM TO POLYCHLORINATED BIPHENYL SAMPLING AND ANALYSIS LOGIN SHEETS  
AND ANALYSIS REPORT MAEL 42247 OF 3/12/2015

Subj: PCB SAMPLING AND ANALYSIS SURVEY FOR (EX-GRAND RAPIDS (PG 98))

Ref: (a) COMNAVSEASYS COM WASHINGTON DC ltr 4770 Ser 00T/248 of 21 Sep 95 (Subj:  
NAVSEA PCB Advisory 95-1)

1. The following statement is provided regarding the number of samples taken as required by  
reference (a):

- 20 Samples of ELECTRICAL CABLE were taken
- 10 Samples of VENTILATION DUCT GASKETS were taken.
- 5 Samples of BULKHEAD INSULATION were taken
- 10 Samples of OILS AND GREASES were taken.
- 5 Samples of DOUBLE-BACKED ADHESIVE TAPE were taken
- 1 Sample of ALUMINIZED PAINT were taken
- 5 Samples of RUBBER APPLICATIONS (i.e., shock mounts, hatch gaskets, pipe  
hangars, etc.) were taken
- 7 Quality Control Samples (FIELD BLANKS and TOOL CHECKS) were taken.

2. A representative sample was taken of each of the applications identified above. No other  
applications meeting the criteria of reference (a) were available for sampling on board.

G. GOINS, J. KING, J. SIRLES

SAMPLER(S)

Printed Name

Vessel Name and Hull Number: EX-GRAND RAPIDS (PG 98)

ELECTRICAL CABLING SAMPLING LOG-IN SHEET (20 Samples required)					
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF CABLE (Size, Color, Manufacturer, MIL-SPEC, etc) Sample Size: 2-1/2" x 1/4"	Cable Year	Result
1	2-11-15 0731	01-55-0- C PILOT HOUSE	2-1/2" x 1/4" GRAY CAROL E18621-1 94AW MS-R PVC	UNK	PCB-1248-316.2 PCB-1254-209.3
2	2-11-15 0739	01-55-0- C PILOT HOUSE	2-1/2" x 1/4" WHITE MANHATTEN WIRE PRODUCTS FRIN SO 310191	UNK	PCB-1248-112.5 PCB-1254-53.10
3	2-11-15 0753	01-63-0-C CIC/RADIO/ CHART ROOM	2-1/2" x 1/4" BLACK BELKIN CORP FASTCAT PATCH CABLE R7J604	UNK	PCB-1248-83.50 PCB-1254-39.30
4	2-11-15 0810	2-39-0-Q MESS ROOM	2-1/2" x 1/4" BLACK PERFECT VISION RG-6 75 OHM 18 AWG	UNK	PCB-1248-60.33 PCB-1254-39.54
5	2-11-15 0820	2-39-0-Q MESS ROOM	2-1/2" x 1/4" GRAY POWER LIMIT CLASS 3 TYPE PLC E 6376 C 1050 13 AWG	UNK	PCB-1248-48.20 PCB-1254-35.70
6	2-11-15 0828	2-39-0-Q MESS ROOM	2-1/2" x 1/4" WHITE E 83032 F 5076 BVV CRD	UNK	PCB-1248-60.75 PCB-1254-46.09
7	2-11-15 0843	2-39-0-Q MESS ROOM	2-1/2" x 1/4"BLACK 18/3 TYPE SJO P-123-7-MSHA	UNK	PCB-1248-50.74 PCB-1254-35.68
8	2-11-15 0848	2-39-0-Q MESS ROOM	2-1/2" x 1/4"BLACK 18/3 TYPE SJO P-123-7-MSHA	UNK	PCB-1248-38.27 PCB-1254-16.74
9	2-11-15 0921	3-143-0-E STEERING	2-1/2" x 1/4"BLACK BRAND REX LSMLCU-7-M24643/18-01UN XLPOLYO	1998	PCB-1254-11.46
10	2-11-15 0941	2-138-0-C MISSILE CONTROL ROOM	2-1/2" x 1/4"10/3 TYPE SO 90 CP-P-123-70 MSHA	UNK	PCB-1254-10.17
11	2-11-15 0736	3-124-01-E AUX MACH RM	2-1/2" x 1/4"BLACK BRAND REX LSMLCU-7-M24643/18-01UN XLPOLYO	1998	PCB-1254-11.05

Vessel Name and Hull Number: EX-GRAND RAPIDS (PG 98)

ELECTRICAL CABLING SAMPLING LOG-IN SHEET (20 Samples required)					
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF CABLE (Size, Color, Manufacturer, MIL-SPEC, etc) Sample Size: 2-1/2" x 1/4"	Cable Year	Result
12	2-11-15 0750	2-138-0-C MISSILE CONTROL ROOM	1-1/2" x 1/4" BLACK CAROL 10/4 90C(UL) WTARE RESISTANT SOOW (-40c) CSA FT-2P-7-123033	1998	PCB-1254-4.880
13	2-11-15 0810	1-84-0-L CPO LIVING	2" x 1/4" BLACK CAROL 10/4 90C(UL) WTARE RESISTANT SOOW (-40c) CSA FT-2P-7-123033	UNK	PCB-1248-48.50 PCB-1254-4.350
14	2-11-15 0832	1-64-0-L PASSAGE	1-1/2" x 1/4" GRAY PACER MARINE E157097 (UL) BOAT CABLE 6AWG/3 COND	UNK	PCB-1248-122.7 PCB-1254-26.20
15	2-11-15 0849	1-103-0-L PASSAGE	1" x 1/4" BLACK CAROL 10/4 90C(UL) WTARE RESISTANT SOOW (-40c) CSA FT-2P-7-123033	UNK	PCB-1248-5.180 PCB-1254-5.150
16	2-11-15 0859	2-124-0-Q ENCL OPR STA	1-1/2" x 1/4" BLACK THERMO ELECTRIC (UL) TYPE PLTC 105c 300V 20AWG	UNK	PCB-1254-160.4
17	2-11-15 0915	3-124-01-E AUX MACH RM	1" x 1/4" BLACK 6/4 TYPE SO P-123-81-MSHA	UNK	PCB-1254-2.460
18	2-11-15 0923	2-124-0-Q ENCL OPR STA	2" x 1/4" BLACK 16/3 TYPE SO NEOPRINE 600 VOLTS	UNK	PCB-1254-61.80
19	2-11-15 0937	3-103-01-E DSL MACH RM	1" x 1/4" BLACK THERMO ELECTRIC (UL) WATER RESISTANT SOOW(-40c) SPL PVC	UNK	PCB-1254-26.33
20	2-11-15 1002	2-124-0-Q ENCL OPR STA	2" x 1/4" BLACK P-13649-MSHA 18 AWG 2/C SJOOW 90c 300 V	UNK	PCB-1248-38.27 PCB-1254-40.28

Vessel Name and Hull Number: EX-GRAND RAPIDS (PG 98)

OIL SAMPLING LOG-IN SHEET (5 Samples of Oil and 5 Samples of Grease Required)				
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF OILS/GREASES (Lube, Hydraulic Oils and/or grease and equipment retrieved from): Sample Size: 1/4" to 1" depth	Result
21	2-11-15 1530	3-103-01-E DSL MACH RM	HYDRAULIC OIL FROM PROP PITCH PUMP SUPPLY TANK	ND
22	2-11-15 1552	3-103-01-E DSL MACH RM	LUBE OIL FROM MAIN LUBE OIL SYSTEM PIPING	ND
23	2-11-15 1600	3-143-0-E STEERING	HYDRAULIC OIL FROM STEERING SYSTEM SUPPLY TANK	ND
24	2-11-15 1557	3-124-01-E AUX MACH RM	LUBE OIL FROM EDG FILTER	ND
25	2-11-15 1655	2-0-0-A BOSN STOREROOM	HYDRAULIC OIL FROM CAPSTAN SUPPLY TANK	ND
26	2-11-15 1612	3-103-01-E DSL MACH RM	GREASE FROM PORT SHAFT LINE BEARING	PCB-1254-4.210
27	2-11-15 1605	3-143-0-E STEERING	GREASE FROM STBD RUDDER YOKE BEARING	PCB-1254-1.457
28	2-11-15 1620	3-103-01-E DSL MACH RM	GREASE FROM STBD SHAFT LINE BEARING	PCB-1254-2.017
29	2-11-15 1606	3-143-0-E STEERING	GREASE FROM PORT RUDDER YOKE BEARING	PCB-1254-1.730
30	2-11-15 1650	2-0-0-A BOSN STOREROOM	GREASE FROM CAPSTAN SHAFT BEARING	PCB-1254-12.97

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VENTILATION GASKET SAMPLING LOG-IN SHEET 10 Samples Required				
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF VENTILATION GASKET (Rubber/Wool Felt, etc) Sample Size: 2" Strip	Result
31	2-11-15 1159	1-64-0-L PASSAGE	BLACK RUBBER	PCB-1254-9.432
32	2-11-15 1202	1-97-2-L PASSAGE	BLACK RUBBER	PCB-1248-38.27 PCB-1254-33.70
33	2-11-15 1215	3-103-01-E DSL MACH RM	BROWN FELT	ND
34	2-11-15 1220	3-103-01-E DSL MACH RM	BLACK RUBBER	PCB-1254-8.720
35	2-11-15 1225	3-124-01-E AUX MACH RM	BLACK RUBBER	PCB-1254-11.53
36	2-11-15 1233	3-124-01-E AUX MACH RM	BLACK RUBBER	PCB-1254-4.690
37	2-11-15 1240	2-61-1-C IC & GYRO ROOM	BLACK RUBBER	PCB-1254-5.250
38	2-11-15 1245	2-48-0-Q GALLEY	BLACK RUBBER	PCB-1248-12.64 PCB-1254-5.260
39	2-11-15 1250	2-27-0-Q SHIPS OFFICE	BLACK RUBBER	PCB-1254-5.550
40	2-11-15 1301	2-12-0-E 3"/50 POWER ROOM	BLACK RUBBER	PCB-1254-1.657

Vessel Name and Hull Number: EX-GRAND RAPIDS (PG 98)

**BULKHEAD INSULATION SAMPLING LOG-IN SHEET**  
(5 Samples Required)

Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF INSULATION (Type, Color, Etc.) Sample Size: 2-1/2" x 1/2"	Result
41	2-11-15 1308	01-63-0-C CIC/RADIO/ CHART ROOM	YELLOW FIBER AND PERF	PCB-1254- 40.05
42	2-11-15 1315	01-55-0-C PILOT HOUSE	GREEN FOAM AND PERF	PCB-1254- 4.350
43	2-11-15 1320	2-124-0-Q ENCL OPR STA	YELLOW FIBER	PCB-1254- 126.2
44	2-11-15 1330	2-138-0-C MISSILE CONTROL ROOM	WHITE BULKHEAD INSULATION	PCB-1254- 8.340
45	2-11-15 1335	2-39-0-Q MESS ROOM	LIGHT-BROWN FOAM	PCB-1254- 9.730

**RUBBER APPLICATION SAMPLING LOG-IN SHEET**  
(5 Samples Required)

Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION (SEE NOTE BELOW) Sample Size: 2-1/2" x 1/2"	Result
46	2-11-15 1353	1-64-0-L PASSAGE	BLACK RUBBER PIPE HANGER	PCB-1254- 15.30
47	2-11-15 1400	3-103-01-E DSL MACH RM	BLACK RUBBER PIPE HANGER	PCB-1254- 18.57
48	2-11-15 1403	3-124-01-E AUX MACH RM	BLACK RUBBER SHOCK MOUNT	PCB-1254- 1.970
49	2-11-15 1407	3-143-0-E STEERING	BLACK RUBBER PIPE HANGER	PCB-1254- 2.010
50	2-11-15 1412	3-143-0-E STEERING	BLACK RUBBER WIRE HANGER	PCB-1254- 2.880

Rubber applications (high temperature applications) include but are not limited to:  
 Isolation shock mounts for electronic equipment      Pipe Block hangers  
 Pipe hangar lines      **NOT VENTILATION GASKETS**

Vessel Name and Hull Number: EX-GRAND RAPIDS (PG 98)

DOUBLE-BACKED ADHESIVE TAPE SAMPLING LOG-IN SHEET (5 Samples Required)				
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF EQUIPMENT (Where Retrieved and color) Sample Size: Strip	Result
51	2-11-15 1439	1-64-0-L PASSAGE	WHITE TAPE, COMPARTMENT CHECK-OFF LIST	PCB-1254-6.060
52	2-11-15 1441	01-63-0-C CIC/RADIO/CHART ROOM	WHITE TAPE, COMPARTMENT CHECK-OFF LIST	PCB-1254-7.990
53	2-11-15 1447	2-61-1-C IC & GYRO ROOM	BLACK TAPE, COMPARTMENT CHECK-OFF LIST	PCB-1254-14.62
54	2-11-15 1456	2-69-1-L CREW LIVING	BLACK TAPE, COMPARTMENT CHECK-OFF LIST	PCB-1254-24.43
55	2-11-15 1512	1-55-2-L COSR	BLACK TAPE, COMPARTMENT CHECK-OFF LIST	PCB-1254-18.90
ALUMINIZED PAINT SAMPLING LOG-IN SHEET (5 Samples Required)				
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION OF EQUIPMENT WHERE RETRIEVED Sample Size: 1/8" to 1/4" depth in container	Result
56	2-11-15 1520	3-76-0-E GAS TURBINE MACH RM	ALUMINIZED PAINT GAS TURBINE INLET	ND
57	N/A	N/A	NO ADDITIONAL ALUMINIZED PAINT LOCATED	N/A
58	N/A	N/A	NO ADDITIONAL ALUMINIZED PAINT LOCATED	N/A
59	N/A	N/A	NO ADDITIONAL ALUMINIZED PAINT LOCATED	N/A
60	N/A	N/A	NO ADDITIONAL ALUMINIZED PAINT LOCATED	N/A

Vessel Name and Hull Number: EX-GRAND RAPIDS (PG 98)

FIELD BLANKS SAMPLING LOG-IN SHEET (2 Samples required: One after the 30th Sample and one after the last solid sample taken)				
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION	Result
FB-61	2-11-15 1305	1-64-0-L PASSAGE	Field Blank #1 AFTER SAMPLE 30	ND
FB-62	2-11-15 1513	1-55-2-L COSR	Field Blank #2 AFTER SAMPLE 55	ND

TOOL CHECKS SAMPLING LOG-IN SHEET (5 Samples required; One after every 10 Solid Samples and one after the last solid sample taken)				
Smpl No.	Smpl Date Time	Location (Compartment Name/Number)	DESCRIPTION	Result
TC-63	2-11-15 0942	2-138-0-C MISSILE CONTROL ROOM	Tool Check #1 (After sample 10 )	ND
TC-64	2-11-15 1006	2-124-0-Q ENCL OPR STA	Tool Check #2 (After sample 20 )	ND
TC-65	2-11-15 1303	2-12-0-E 3"/50 POWER ROOM	Tool Check #3 (After sample 40 )	ND
TC-66	2-11-15 1413	3-143-0-E STEERING	Tool Check #4 (After sample 50 )	ND
TC-67	2-11-15 1513	1-55-2-L COSR	Tool Check #5 (After sample 60)	ND